

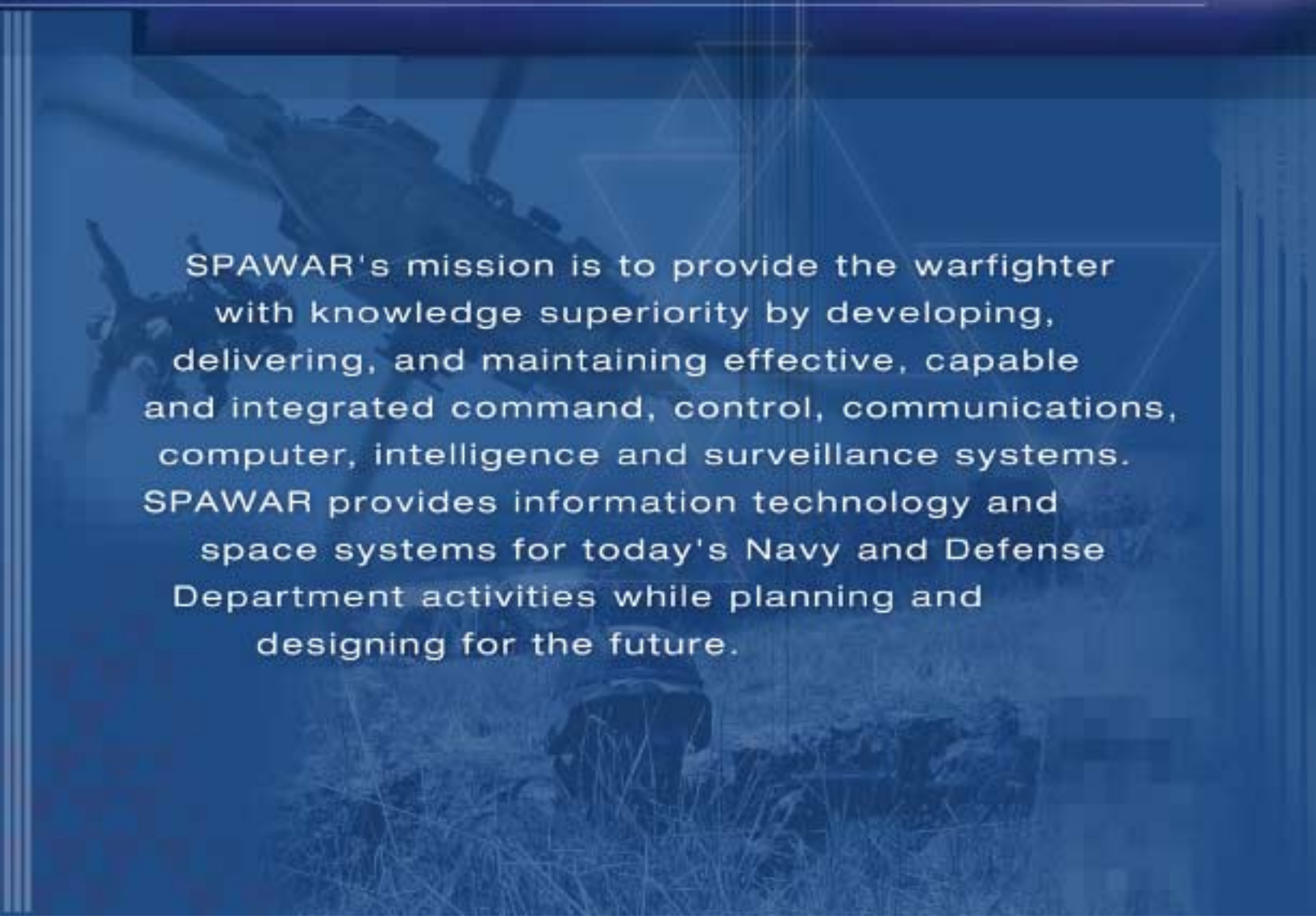
Powering Transformation

SPAWAR





The SPAWAR Mission



SPAWAR's mission is to provide the warfighter with knowledge superiority by developing, delivering, and maintaining effective, capable and integrated command, control, communications, computer, intelligence and surveillance systems. SPAWAR provides information technology and space systems for today's Navy and Defense Department activities while planning and designing for the future.



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Commander's Message

SPAWAR: Transforming the Navy today, developing capabilities to transform the way we fight in the future



"I want to emphasize how critically important the NETWARCOM-SPAWAR relationship is, as it was directed by the two CNO Executive Boards...as I see it, I will be very, very dependent upon...SPAWAR to do my mission."

VADM Richard W. Mayo,
Commander NETWARCOM

2002 has been a year filled with challenges, triumphs, transformation, and opportunities. The Joint services have performed superbly in the War on Terrorism in Afghanistan and abroad. The warfighter has adapted and used SPAWAR's information technology (IT) systems to increase the accuracy and shorten the time required to put weapons on target. SPAWAR's skilled team of engineers, program managers, and staff is fueling the Department of the Navy's transformation and providing the capabilities necessary to realize a new era in warfare.



As Operation Enduring Freedom was being planned, SPAWAR developed and accelerated C4I systems and strategies to meet the new threats facing our military and homeland. The War on Terrorism

has been a catalyst for transforming combat and information technology

systems from supporting large-scale battle scenarios to those involving small unit operations, urban warfare, or special operations missions. SPAWAR provides today's warfighter with mobile, flexible C4I systems that deliver significant bandwidth, communications, and imagery transmission capabilities, reducing the time required to get targeting solutions to weapons platforms.

During Operation Enduring Freedom, more than 300 secure chat rooms installed by SPAWAR as part of *IT-21* exchanged mission-critical information and significantly shortened mission-planning time. Increased bandwidth for ships at sea and new small-units communication capability are additional examples of the transforming capabilities SPAWAR provided this year. *Coalition Wide Area Network (COWAN)* and *Multiple Security Level (MSL)* technologies made a dramatic impact during Operation Enduring Freedom and changed the way we operate with Allied forces.

Today, 70,000 Sailors and Marines embarked at sea are living and working with new IT capabilities. While deployed, they can exchange e-mail with their families at home, work on college degree



programs through Internet classes, and communicate with greater ease than at any time in the Navy's history. By truly revolutionizing routine on-deployment communications through *IT-21* and Internet access, SPAWAR helps the Navy retain its warfighters and keep morale and motivation at the levels needed for maximum readiness.

FORCEnet is the Navy's transformational architecture for how Navy and Marine Corps elements will be linked with Joint, Allied, and Coalition forces through seamless, interoperable integration with the Department of Defense *Global Information Grid*. Today, SPAWAR is working to make the *FORCEnet* architecture a reality.

SPAWAR entered partnerships ranging from Joint interoperability and test activities to serving as the Chief Engineer to NETWARCOM for *FORCEnet*. We are partnering with federal, state, and local agencies to identify military C4I technologies that can be rapidly and efficiently adapted for Homeland Security needs, while simultaneously using technology to provide new physical security capabilities for the White House and Washington D.C. area.

In addition, SPAWAR applies innovative acquisition strategies, sound systems engineering, and best-of-breed commercial business initiatives to ensure that our products deliver maximum capability and efficiency. Our *Balanced Scorecard* metrics allow us to identify challenges early and apply the necessary expertise. These and similar initiatives across SPAWAR further CNO directives to provide more products and services to the Fleet at a lower cost to the taxpayer.

2002 has been a highly successful year for SPAWAR. We have laid the foundation for dramatic increases in current and future readiness while simultaneously enabling the first glimpses of *FORCEnet* and a new era in warfighting capabilities.

We look forward to the challenges and contributions of 2003.

Ken Slaght

Rear Admiral, United States Navy
Commander, Space and Naval
Warfare Systems Command

"Forcenet will be a keystone building block for Sea Power 21, and we need to ensure it is done right...based on their track record, and institutional competencies, SPAWAR is the prime candidate."

ADM Walter F. Duran
Commander, U.S. Pacific Fleet

Introduction

SPAWAR - Bringing transformation to the Navy, value to the Fleet, and better security to the nation



SPAWAR delivers and supports robust, highly interoperable *C4ISR* systems, customizable content management, intuitive decision tools, and reliable information assurance. Underlying these complex systems technologies is SPAWAR's commitment to value. In 2002, SPAWAR applied ingenuity and sound management practices to accelerate capability delivery, enhance performance, and manage costs.

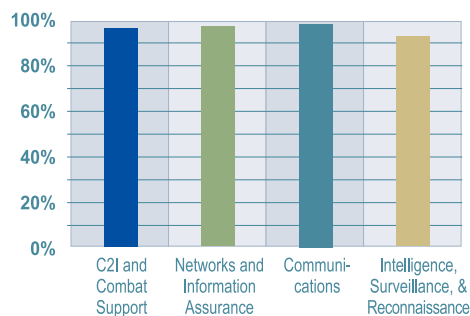
Accelerated Schedules.

SPAWAR has met the challenges of early deployment for Operation Enduring Freedom (OEF) missions. We accelerated installations on six battle groups up to 6 months.

Improved Performance.

This year, SPAWAR has seen a heightened focus on rapid Fleet response, where interoperability with other Services and Coalition partners, and continued system efficiencies are paramount. During OEF our systems were free from Casualty Reports (CASREPs) over 90 percent of the time. Every system we design meets or exceeds its availability threshold.

CASREP Free Time



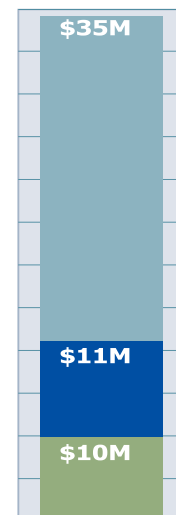
High CASREP Free results provide the warfighter maximum use of SPAWAR systems.

Cost Efficiencies. Even with accelerated schedules and battle group composition changes, installation management strategies enabled SPAWAR to perform 97 percent of all installations within budget. Improved installation, contracting, and acquisition management strategies resulted in savings totaling more than \$56M, of which 60 percent was returned to the sponsor, 20 percent was used to accelerate delivery of critical systems, and 20 percent was applied to provide additional warfighting capabilities to the Fleet.

Financial Management.

To enhance our ability to manage costs, SPAWAR completed the implementation of a *Financial Management Information System (FMIS)* using a common work breakdown structure. *FMIS*' standardized processes and toolsets provided a framework for consistency in planning and control. They also enable SPAWAR to better report cost, value, and capability to customers and stakeholders.

Cost Savings



The Command achieved over \$56M in savings that were passed on to the Fleet or CNO sponsors.

- Returned to the sponsor
- Accelerated delivery of systems
- Additional capability to the Fleet



Communications

Producing communications systems that work together—from space to seafloor, to create a grid for true network-centric warfare

Capacity Increase. The Fleet has spoken and its message is clear: We want more bandwidth! Fortunately, SPAWAR anticipated that need and delivered systems such as *Submarine High Data Rate (Sub-HDR)* in FY02. *Sub-HDR* increases data rates from 2.4 Kbps to 128 Kbps for super high frequency (SHF) and 1024 Kbps for extremely high frequency (EHF).

SPAWAR also delivered three EHF medium data rate (MDR) systems, which provide Joint interoperable communications at all levels of conflict, even under extreme conditions. Surface ships that received these installations measured protected point-to-point data rates of 1.544 Mbps.

Coalition Interoperability.

Current SPAWAR communications programs remained vital in the global war on terrorism. *Battle Force E-mail (BFEM)*, using legacy HF radio systems, was integrated into the *Coalition Wide Area Network (COWAN)/Combined Enterprise Regional Information Ex-*

change System (CENTRIXS), allowing Coalition partners to achieve low-cost interoperability with the Navy. Further, SPAWAR achieved their goal to deliver this capability to the Fleet within the execution year. SPAWAR coordinated with 20 Coalition partners in support of Operation Enduring Freedom and fielded *CENTRIXS* on more than 50 ships during the last year.

“USS Jefferson City experienced a quantum leap in communications ability... [and] ...isolation on deployment was 100 percent mitigated by having Sub-HDR.”

CDR Richter, Commanding Officer of *USS Jefferson City*

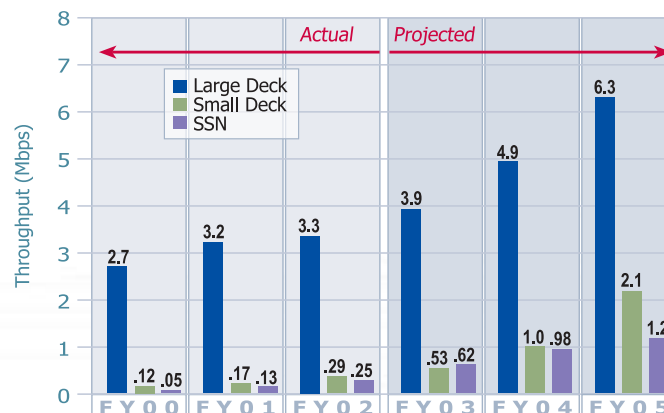
Improved Efficiency.

SPAWAR's *Automated Digital Networking System (ADNS)* represents a marked

In 2002, SPAWAR converged the Bahrain, Central Europe, and Pacific computer and telecommunications stations into a single autonomous system, thus eliminating the majority of cross connects and routing loops that were adversely impacting throughput rates and capacity.

improvement in RF and satellite resource use by routing voice, video, and data from multiple sources over idle communications paths. New quality-of-service features will establish message and service priorities, which is crucial when planning and tactical link networks merge.

Throughput Increases



SPAWAR fielded major SATCOM upgrades to deliver improvements in bandwidth for deployed forces.

Space Technology

Integrating space resources with Navy C4ISR systems to improve knowledge superiority



Innovation. Working with the Naval Network and Space Operations Command and the U.S. Strategic Command, SPAWAR analyzed existing in-orbit *UHF Follow-On (UFO)* assets, engineered a frequency reuse solution that provided nine additional UHF SATCOM channels, and increased bandwidth by over 15 percent.

UFO provides worldwide communications to all military services using unprotected narrow band, protected low data rate extremely high frequency (EHF), and global broadcast services. *UFO* achieved nearly 100 percent availability levels during Operation Enduring Freedom.

Extending Reach. The need to provide connectivity in high-stress environments such as mountainous terrains, urban canyons, and thick jungle is quickly becoming reality. Currently, SPAWAR is developing the *Mobile User Objective System (MUOS)*, the next generation narrowband satellite communications system to ensure knowledge superiority for our mobile forces. At completion, *MUOS* will have the satellite

network and ground infrastructure to operate in the *Global Information Grid (GIG)* architecture. It will provide a fourfold increase in capacity over *UFO*, as well as ensure connectivity in the high-stress environments encountered in the War on Terrorism.



Night launch of the Navy's 10th UHF Follow-On communications satellite.

In presenting the Meritorious Unit Commendation, Secretary of the Navy Gordon R. England noted that SPAWAR personnel,

"...consistently demonstrated unparalleled success in procuring, launching, and making operationally available nine UFO communications satellites to the warfighter..."

He also observed,

"Their sustained efforts provided over \$456 million in cost avoidance while fielding a combat system essential to the support of the 21st century warfighting doctrine of U.S., Allied, and Coalition Forces in less than half the time of nominal DoD space programs."

Networks and Information Assurance

Providing high-speed, secure, interoperable networks both afloat and ashore

Afloat Networking. SPAWAR fielded more than 35,000 network drops on nearly 220 ships and submarines under *Information Technology-21 (IT-21)*, in only four years. This massive network modernization equates to 6 million feet of fiber-optic cable, 850 servers, 1,200 switches, 2,500 printers, and 23,000 workstations. More than 70,000 Marines and Sailors can now communicate via e-mail, chat, or Web, anytime—anywhere in the world.

Secure Networks. The *Sensitive Compartmented Information (SCI) Network* provides secure and reliable Internet Protocol (IP) communications, real-time advisory intent, and geolocation to support time-critical strikes, battle damage assessments, and weapons and sensor cueing. SPAWAR installed 30 shipboard suites, upgraded three shore sites, and achieved hardware and software Operational Availability (A_0) of 0.998.

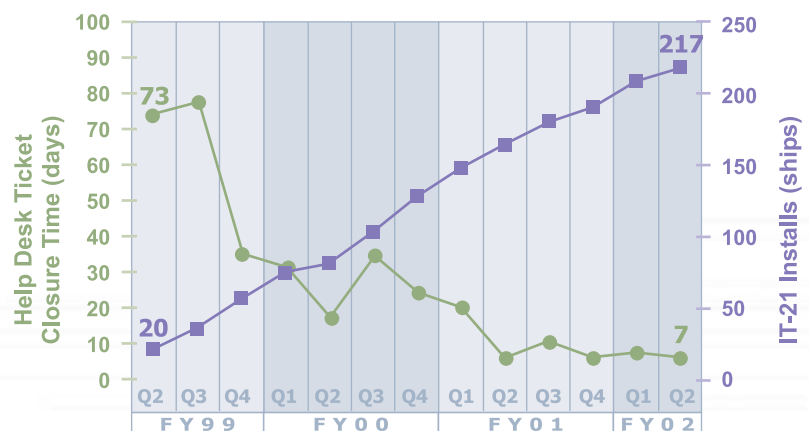
Messaging Upgrades. Supporting DoD and DoN transformation efforts, the *Defense Messaging System (DMS)* spans *Navy Marine Corps Intranet (NMCI)*, *Task Force Web*, *FORCEnet*, and the *Global Information Grid (GIG)*. SPAWAR shipped *DMS Release 3.0, Gold* software to more than 1,800 Navy *DMS* organizational messaging user commands. This release provides the security capabilities needed for full DoD fielding and transition from *Automatic Digital Network (AUTODIN)* messaging.

After the 9/11 attacks, SPAWAR's Secure Voice team rapidly procured and fielded 4,500 secure telephones and provided more than 180 hours of technical assistance – seven times the normal volume and three times the normal amount of technical support.

SPAWAR brings integrated voice, video, and data communications to Sailors and Marines through the NMCI, an innovative, \$8.82 billion IT effort. NMCI has now deployed 38,000 of its projected 350,000 user seats, opened a third Network Operations Center, and successfully completed operational assessment testing. Using the NMCI contract, SPAWAR restored communications for 700 Navy users within a week after the 9/11 attack on the Pentagon.

IT-21 Installs and Help Desk Ticket Closure Time

While the number of ship installs increased tenfold, help desk ticket closure time decreased by 90%.



C2I and Combat Support

Developing C2I applications that enable land, sea, and air platforms to plan and conduct operations more effectively



SPAWAR implemented Command, Control, and Intelligence (C2I) network upgrades that ensure reliable communications between Navy tactical systems and remote users. By fielding the latest transport technologies available, data transfer rates have increased from 128 Kbps to as much as 2.048 Mbps, greatly improving the Fleet's ability to rapidly identify, target, and neutralize a potential adversary's fixed and mobile assets.

Web-Enabled C2. The *Global Command and Control System-M (GCCS-M)* provides a near real-time, fused, situational awareness picture for decision making. In 2002, SPAWAR integrated four Web-based components of *GCCS-M* in a portal environment on *USS George Washington*. For example, SPAWAR-developed *GCCS-M WebSked* to provide timely information for force planning, fuel budgeting, operational tempo, and ship scheduling.

Navigation-to-Target Accuracy. SPAWAR installed 32 *Navigation Sensor System Interface (NAVSSI)* systems on carriers and destroyers. These provide synchronized navigation data to more than 40 shipboard combat systems. Under the *Global Positioning System (GPS) Navigation Warfare Program (GPS NAVWAR)*, ships are able to point nulls on jamming signals while receiving *GPS* satellite signals. This ensures reception of precise navigation inputs needed for targeting

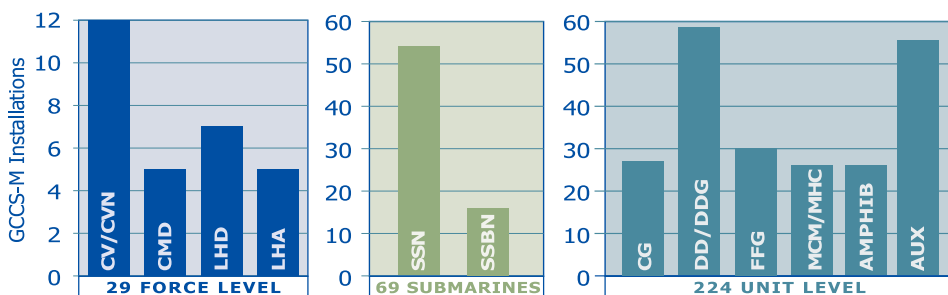
solutions and accurate situational awareness, even in hostile electronic environments.

Logistics Efficiencies. In 2002, SPAWAR tested the *Maritime Logistics Data Network (MLDN)*, a data replication system that allows ship and shore users to access the same supply information via a Citrix Systems, Inc. application. Onboard prototype testing resulted in over 2,500 man-hours being saved compared to previous support processes. In addition to reducing Sailor workload, *MLDN* is expected to allow continuous, real-time access to logistics pulse points.

"MLDN continues to pay big dividends. This is probably the most robust initiative prototyped onboard *USS Truman*. This functionality should continue to be pursued... there is definite potential for workload savings here."

Supply Officer,
USS Harry S. Truman

Command and Control Presence Afloat





Intelligence, Surveillance, and Reconnaissance

Gathering the data and imagery to provide the knowledge superiority needed for accurate, time-sensitive operations and information dominance

Signal Exploitation. The *Maritime Cryptologic System (MCS-21)*, which is scalable to surface, subsurface, and aerial platforms, intercepts signals to survey the electronic battle space. *MCS-21* collapses legacy system stovepipes to provide *FORCEnet*-enabled Information, Surveillance, and Reconnaissance/Information Warfare (ISR/IW) capability. *MCS-21*-related subsystems provided sensitive command and targeting information to Coalition forces in Operation Enduring Freedom.

Managing Collection Assets.

In cooperation with Navy *Tactical Exploitation of National Capabilities (TENCAP)*, SPAWAR designed and fielded the *Surveillance and Reconnaissance Management Tool (SRMT)*. *SRMT* maximizes the efficiency of organic surveillance and reconnaissance assets to meet rapidly developing operational priorities. It is currently used in direct support of U.S. Central Command (CENTCOM) operations.

Linking Assets. SPAWAR developed and is fielding the *Common Data Link-Navy (CDL-N)*, a key tactical network-centric component of *FORCEnet*. Com-

patible with Joint and Allied aircraft, *CDL-N* links battle space sensors and the national-tactical network. It also provides bandwidth for remote operations from ships and provides quality imagery and video from aircraft to ships.



Tactical Information Warfare.

For the navies of the U.S. and Great Britain, the *Cooperative Outboard Logistics Update (COBLU)* program provides comprehensive surface tactical information warfare exploitation functions. SPAWAR's reuse of military and commercial signal exploitation equipment lowered development and support costs. The open systems architecture will allow cost-effective future technology implementation to handle evolving threats.

Transformational Leadership.

Capitalizing on expertise in key Information Operations (IO) core areas, SPAWAR formed the Information Operations Working Group to merge expertise from Fleet Information Warfare Center (FIWC), NETWARCOM, Naval Security Group Activity (NSGA), Fleet, and others to find full-spectrum electronic warfare solutions and to integrate and enhance Naval IO systems and operational initiatives.

Threat Detection. As part of *Integrated Undersea Surveillance System (IUSS)*, the *Advanced Deployable System (ADS)* provides subsurface intelligence data, indications and warning events, and targeting solutions for strategic or tactical applications. In 2002, SPAWAR's *ADS* work focused on software and sensor production to detect and classify intelligence on enemy submarines.

SPAWAR implemented a manufacturing technology initiative for ADS array sensors that reduced estimated labor from the baseline of 7.82 hours per assembly to 2.80 hours for the current configuration—a 64% reduction.

Homeland Security

The War on Terrorism will chiefly be an information and intelligence war, where effective analysis and shared communication are paramount



Coordinated Effort. Now more than ever, knowledge superiority and integrated *C4ISR* products are essential to the Nation's and the Navy's success. To address this national priority, SPAWAR established an Office for Homeland Security to ensure SPAWAR products, services, and capabilities were coordinated and integrated with those from other services; federal, state and local agencies; industry and academia.

Rapid On-site Response.

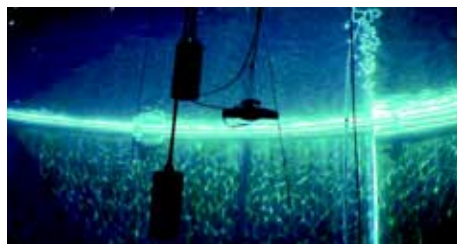
SPAWAR deployed on-site teams to restore functions of the Navy Command Center after the 9/11 attack on the Pentagon. This included restoration of ultra high frequency (UHF) satellite communications, *Global Command and Control System-Maritime (GCCS-M)*, worldwide teleconferencing, and meteorological and oceanographic (METOC) capabilities.

Emergency Operations.

This year, SPAWAR completed the Navy Region Mid-Pacific Regional Command and Operation Centers. The centers now have full *C4ISR* capability for emergency operations and consolidated public safety operations and dispatch capabilities.

Integrated Security Systems.

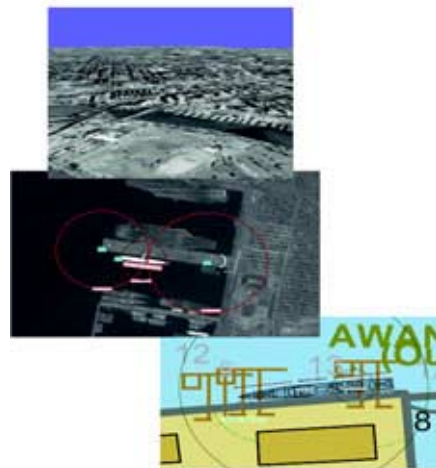
For Navy Regions Northeast, Mid-Atlantic, Southeast, and Northwest, SPAWAR designed and installed integrated base security systems including exterior and interior sensors, command and control consoles, access control, and personnel alerting systems.



The Kongsberg SM 2000 underwater during Swimmer Detection Sonar System evaluations.

Port Security. To reinforce harbor and port security in air, sea, and land, SPAWAR provided analytical, engineering, and fielding services. SPAWAR installed wide area perimeter surveillance systems for integrated security management, deployed swimmer detection sonar systems, and fielded multidomain (air, sea, and land) unmanned systems.

SPAWAR also developed and evaluated *Force Protection Tactical Decision Aids (TDA)* to enhance in-port security planning through a cohesive view and integrated force protection plan.



Force Protection Tactical Decision Aids include: 3D Imagery, Satellite Imagery, and Digital Nautical Charts.



Interagency Support

In partnerships with agencies and industry, SPAWAR applies technology and expertise to meet national challenges

Drug Interdiction. SPAWAR implements technologies to collect and analyze intelligence and sensor data and then coordinates responses with US Pacific Command and Federal law enforcement agencies to disrupt international drug trafficking.



A Global Hawk UAV prepares for flight.

Tactical Reconnaissance.

SPAWAR helped develop terrestrial communications links to route data from

the Air Force's Global Hawk Unmanned Aerial Vehicle (UAV). The Global Hawk was an important tactical reconnaissance tool in Afghanistan, and its timely dissemination of data was a key factor in its tactical effectiveness.

Partnership with Industry.

SPAWAR developed a commercial satellite-based voice, video, data and internet connectivity that enhances the quality of life for deployed forces in the Balkans region. By managing satellite resources and broadcast content, SPAWAR provides critical theater information management services throughout Europe.

Working with NASA and commercial satellite providers, SPAWAR uses satellite imagery from civilian space programs for military uses. Using both NASA and commercial spacecraft (like *Terra*, *Quikscat*, and *Orbimage*), SPAWAR

converted image information to aid time-critical strike planning and weapons selection for Afghanistan and other potential target areas in the Middle East.

Material Management.

In developing a series of Web-based data management and decision support tools, SPAWAR greatly enhanced logistics management capabilities.

- **Energy Online** — online ordering and financial management of fuel inventories at DoD fuel facilities worldwide.
- **Integrated Consumable Item Support (ICIS)** — enables Joint Command decision makers to correlate warfighter readiness with weapon and troop support item availability.

Special Forces C4I. SPAWAR developed and is upgrading the Special Operations Force's *Tactical Assured Connectivity System*, a compact portable satellite terminal. SPAWAR's next generation design will provide field commanders with immediate voice, data, imagery, and video teleconferencing at all classification levels. It provides seamless interaction with theater, USSOCOM, DoD, and national C4I systems in the early stages of an operation.

***"P**arking UAVs over bad guys for days or weeks and never giving them a chance to do something unseen is truly transformational."*

Dyke Weatherington,
Deputy of the UAV Planning Task Force in the Office of the
Secretary of Defense.

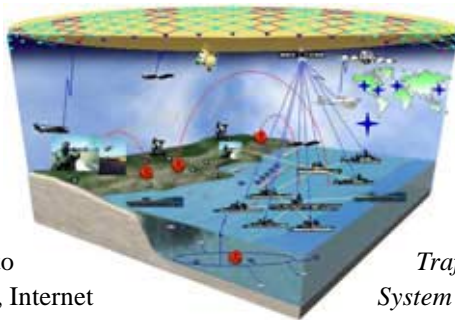
Future Technologies

Leading the development of new C4ISR technologies that will make FORCEnet a reality



Working closely with the Navy's advanced research and development activities, SPAWAR is conducting basic technology research and incorporating the results in the design of innovative applications. In many instances they are rapidly fielding systems that embody *FORCEnet* tenets and are best suited for fighting the war on terrorism.

Engineering FORCEnet. One of *FORCEnet*'s main tenets is the *Expeditionary Command, Control, Communications, Computers, and Combat Systems Grid, (EC5G)*. This CNO-led and SPAWAR-supported effort transforms specialty networks into global, secure, robust, Internet Protocol (IP) network architectures that are integrated across all Naval missions and functional areas. The *EC5G*'s spiral



development process will continually insert innovative capabilities with the end goal of achieving *FORCEnet*'s "Fully Netted" Naval Force.

Technology Application.

Improving the transition of science and technology investments to the warfighter is important to the Navy. SPAWAR is committed to streamlining the transition process. Projects planned for transition to SPAWAR programs include the *Integrated VHF/UHF/L-Band Antenna System* — provides multiple *C4ISR* line-of-sight radiating into a single, low observable, structural antenna system; and *Traffic Flow Engineering System* — an IP network architecture which optimizes link/path selection and permits prioritization of critical information exchanges.

Validating New Technology.

SPAWAR is at the forefront of Navy, Joint, and Combined experiments, demonstrations, and Fleet operational assessments. As the lead Navy site hosting Joint Warrior Interoperability Demonstration (JWID) 2002, SPAWAR demonstrated *Global Information Grid (GIG)* technologies for the warfighter and Coalition interoperability initiatives.

Network Evolution. Continuing the commitment to Network Centric Computing, SPAWAR is developing and enhancing networks with increased availability, redundancy of user data, speed and flexibility. Hardware being installed now offers significant reductions in weight, space, power, heating, and system administration requirements.



Innovation Leadership. SPAWAR continues to lead the Navy in developing innovative, transformational technologies:

- *Knowledge Web (K-Web)* applies knowledge management practices to warfighting using Web-based technologies to conduct distributed command and control at increased speeds. Installed onboard the *USS Carl Vinson*, *K-Web* was used to conduct the Navy's portion of the air war over Afghanistan.



K-Web content being viewed on the Knowledge Wall at NWC

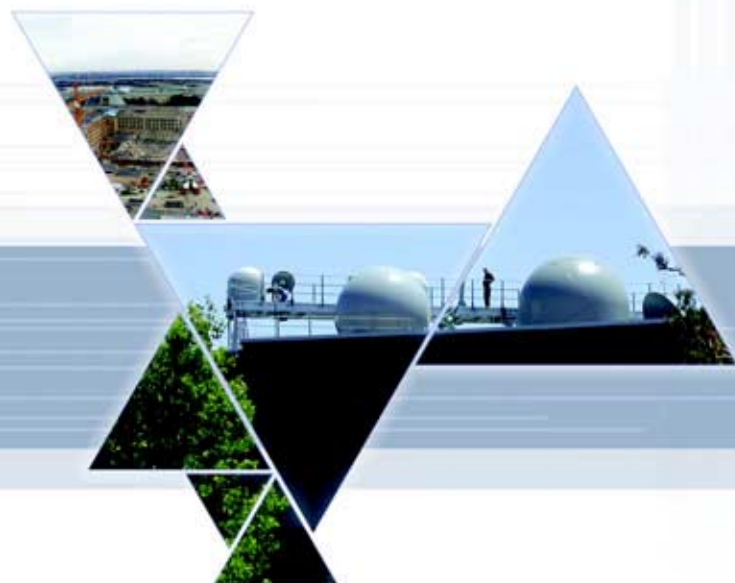
- *Underwater Radiation Monitoring Unit* is a hand-held, diver-operated medium resolution gamma and neutron detector. Development is underway for variants that perform remote detection functions.
- *Marine Corps Tactical Exploration Group-Expeditionary (TEG-E)* provides near real-time imagery and analytical tools to better equip tactical decision makers. In FY02, SPAWAR provided architectural engineering and operational testing expertise for *TEG-E*.
- SPAWAR is providing systems engineering and modeling and simulation services for Unmanned Aerial Vehicles (UAVs) and Unmanned Combat Aerial Vehicles (UCAVs) that provide surveillance and conduct enemy air defense suppression and strike missions.
- In FY02 SPAWAR successfully demonstrated an 11-node *Deployable Autonomous Distributed System (DADS)* network and a SATCOM link

between undersea sensors and a command center through the innovative use of fixed and mobile acoustic-to-RF gateways. *DADS* improves the Navy's ability to conduct effective antisubmarine warfare (ASW) and ISR operations.

- *Multi-Intelligence SIGINT Sensor Processing* technology provides integrated intelligence products to the common operational and tactical picture. SPAWAR is integrating shipboard communications intelligence and electronic intelligence resources to provide detailed parametric electronic signature collection capabilities.
- The *Dynamic Tactical Targeting (DTT)* program focuses on developing a dynamic process for the initial stages of targeting to provide a tighter coupling between ISR data fusion and sensor management. SPAWAR's recent support for *DTT* has emphasized modeling and simulations and real-time control functions.

Fleet Support – Installations

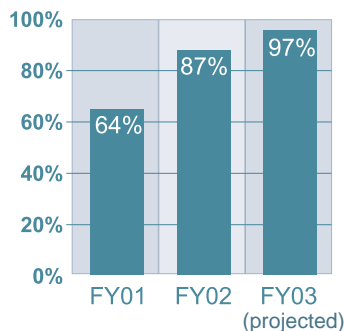
Delivering maximum system performance and availability to the warfighter



Strong Performance.

The SPAWAR installations management team performed more than 1,800 afloat and ashore installations of the SPAWAR product line to meet critical Fleet *C4ISR* capability and network operating center requirements. With improved installation processes and better coordination between the Systems Commands, SPAWAR supported accelerated battle group deployments and battle group composition changes with minimal financial impact.

Installs Completed Within Availabilities



Improved installation processes allow early deployments and improved operational readiness.

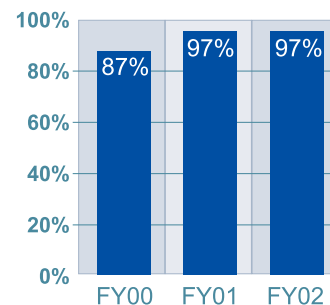
Customer On-Site Feedback.

In an effort to ensure that SPAWAR installations meet Fleet expectations, SPAWAR senior leadership and program managers make it a priority to visit ship and shore sites that receive SPAWAR installations. In FY02 SPAWAR managers made more than 240 ship and shore visits, providing the Fleet with rapid resolution to their *C4ISR* system and installation concerns.

Compressed Schedules –

Higher Availabilities. SPAWAR completed over 1,360 *IT-21/C4ISR* installations in six carrier battle groups in FY02. The majority of installations were performed in the Inter-Deployment Training Cycle (IDTC), allowing the carrier battle groups to deploy up to 6 months early with no impact on their *C4ISR* warfighting capability. In addition, these early installations gave ship's personnel time to complete operator and maintainer training early, improving overall operational readiness.

Installs Completed Within Budget



A sustained rate of 97% of all installs being completed within budget is a significant achievement, considering the accelerated deployment challenges in FY02.

Cash Strategies and

Efficiencies. SPAWAR's tailored management afloat installation strategy supports the D-30 process. By implementing refined cash flow strategies, SPAWAR ensures the proper amount of funding is applied at the optimum time. This funding supports ship checks and installation



C4ISR Installs During FY02

Afloat Over 1,360 Systems Installed

SINCGARS Advanced System Improvement Program
Afloat Technical Training Equipment
Automated Digital Network System
Battle Force E-mail
Global Command and Control System-Maritime
Integrated Shipboard Network System
International Maritime Satellite
Naval Tactical Command Support System
SHF/EHF SATCOM
Tactical Integrated Digital System
Theater Battle Management Core System
TV-Direct to Sailors

Ashore Over 475 Systems Installed

Afloat Technical Training Equipment
Automated Digital Network System
Base Level Information Infrastructure
Defense Messaging System
Global Broadcast System
Global Command and Control System-Maritime
Naval Integrated Tactical Environmental System
Naval Tactical Command Support System
SHF/EHF SATCOM
Tactical Data Information Link

drawing preparation early in the D-30 cycle, as well as installation in CNO availabilities and other approved, scheduled availabilities early in the ship's IDTC. This ability to maintain funding flexibility enabled SPAWAR to be more responsive to changing Fleet requirements and deliver installation efficiencies. Some examples include:

- Providing Commander, Fleet Forces Command with a \$1 million rebate, which was redirected to support urgent Fleet tasking.
- Accelerating execution of \$5.3M worth of requirements from FY03 to FY02 with no execution year budget adjustment to meet emergent Fleet requirements.
- Handling \$12.5M in churn costs resulting from battle group composition changes needed to support evolving operational requirements.

Responsive Command Center Engineering. SPAWAR provided extensive integration and installation support for the reconstitution of the Navy

Command Center (NCC) that was completely destroyed in the 9/11 terrorist attack on the Pentagon. NCC full operational capability was completed May 2002. As terrorist activity is still a primary concern, the Vice CNO directed a series of urgent high-level reviews of Naval and OPNAV staff ability to continue operations during and after any additional terrorist attacks. These reviews resulted in the Vice CNO directing Alternate Navy Command Center improvements for a high-priority, national level exercise. SPAWAR successfully completed an estimated 8-month installation effort in fewer than 2 months and within budget.

Training Center Capabilities.

To modernize Fleet Training Centers (FTCs) and improve student throughput, SPAWAR completed consolidated installation. FTC San Diego's throughput rate for key courses increased from 195 to 415 graduates per year. Similar efforts are also underway at FTC Norfolk.

Fleet Support – Engineering and Logistics

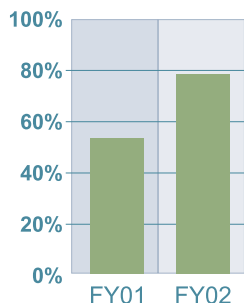
**Responsive, mobile, and flexible—
real-time solutions for the Fleet**



Improved Logistics Delivery.

Integrated Logistics Support (ILS) is certified by SPAWAR and approved by each Ship Program Manager to ensure sustainment support. Despite accelerated deployment schedules, SPAWAR improved ILS readiness for installations by nearly 40 percent in FY02.

ILS Certifications



Our new process with NAVSEA improved on-time ILS certification by 40% and enhanced system support effectiveness.

Collaborative Help Desk.

SPAWAR continued the transition to a single-point repository for trouble ticket responses in FY02 as we aligned help desk operations by implementing the Navy Distance Support Architecture. This change consolidated help desk functions and resulted in a one-source collaborative system. Its benefits included improving

"I would like to express my sincere appreciation for the outstanding assistance of the Fleet System Engineering Team. Their superb technical expertise, superior initiative, helpful attitude were key to the readiness of myriad digital systems and contributed to the operational success of the George Washington Battle Group in the 5th Fleet AOR."

RADM Joe Sestak, Commander,
Cruiser Destroyer Group Two

readiness, reducing workload afloat, and facilitating reliable metrics gathering. These functions support continuing Fleet capability improvements as our forces move through transformation.

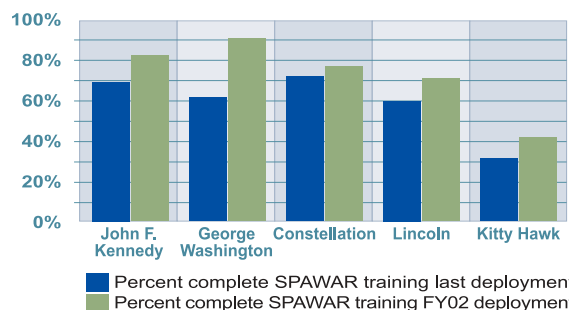
Increased Training.

SPAWAR's Integrated Battle Force Training (IBFT) is a Web-enabled tool for planning and tracking C4I training requirements. The IBFT tool documents training requirements in alignment with the D-30 process and improves Fleet capability. It applies standardized requirements and processes for incorpo-

rating new technology into each deploying battle group. In implementing IBFT at waterfront centers, SPAWAR ensures that our ships and crews receive speed-to-capability technology improvements and the training needed to use them.

On-site Worldwide. SPAWAR's Fleet System Engineering Teams (FSETs) are the Battle Group Commander's go-to team of technical advisors dedicated to resolving C4ISR integration and technical network issues. In FY02, FSETs were integral to the success of Operation Enduring Freedom. Deployed throughout the war zone 24x7, they ensured seamless connectivity for all Navy C4ISR systems. Under speed-to-capability initiatives, FSET assets and expertise provided important tools to the Fleet for fighting the War on Terrorism.

C4ISR Training Completion Increases by Battle Group





Enterprise Applications

Applying efficiency, cost-saving enterprise applications, and optimized processes is key to SPAWAR's mission of delivering value to the Fleet in today's accelerated deployment environment

Service Record Access.

The *Defense Integrated Military Human Resources System (DIMHRS)* will serve as a personnel and pay system that tracks the careers of all active duty, reserve, and National Guard service members world-wide, even during wartime. It will retain a service member's career in a readily available, single, comprehensive record of service. With the 2002 award of multiple development contracts, SPAWAR is developing the *DIMHRS* system specification and program management plan.

Acquisition Management

Insight. SPAWAR developed the *Naval Tool for Interoperability Risk Assessment (NTIRA)* to support CNO, CFFC, NETWARCOM, and SPAWAR's Chief Engineer staffs with a database that draws from numerous authoritative data sources and is merged into a single tool. Throughout the acquisition life cycle, it allows users to generate and track program requirements and to aid in planning, budgeting, and acquisition management.

Healthcare Information

Access. The *Shipboard Non-tactical Automated Data Processing (SNAP)* *Automated Medical System (SAMS)* tracks the medical and dental readiness of operational units at more than 1,300 sites. *SAMS* reduces staff workload and enhances the credibility, standardization, and quality of healthcare documentation. In FY02 SPAWAR deployed a major software upgrade to *SAMS* that now rolls up critical field activity medical readiness information to middle- and upper-echelons.

Real-time Medical Data.

To replace an outdated system, SPAWAR developed and implemented *RAMIS*, the *Reserve Automated Medical Interim System*. With mobilization and readiness as a top priority, headquarters needed the ability to immediately get assessment

information. *RAMIS* calculates medical readiness assessments and tracks required medical exams.

Improved Operations. With the *Naval Aviation Logistics Command/Management Information System's (NALCOMIS) Optimized Organizational Maintenance Activity (OOMA)* database system, aviation support crews can log repairable parts and maintain squadron aircraft status in real time. SPAWAR recently collaborated with NAVAIR to develop *NALCOMIS Optimize*. This derivative logistics and maintenance database enables battle group and Joint Task Force leaders and planners to determine the mission-capable status of all Navy aircraft by squadron and location in 15 minutes.

"The most significant contribution is the speed at which the maintenance cycle can now be completed. The use of [NALCOMIS OOMA] allows the aircraft intermediate maintenance department and S-6 to work closer together than in the past; the result being the expedient repair and replacement of broken parts."

Scott Bertagna, AIMDs Aviation Storekeeper 1st Class

SPAWAR

Accomplishments in FY02



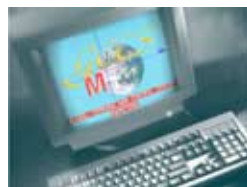
SCHEDULE

In support of Operation Enduring Freedom (OEF), SPAWAR:

- Compressed all installation schedules for six battle groups, including a 6-month acceleration for the *USS John C. Stennis* Battle Group.



- Provided upgraded *Tactical Environmental Support System (TESS)* capability to deploying big decks — completing installation on the first platform less than 30 days from concept to System Operational Verification Test.
- Designed and fielded the *COWAN* in 3 months, well ahead of schedule, resulting in a dramatic improvement in Coalition interoperability.
- Delivered speed-to-capability products for *Global Command and Control System-Maritime (GCCS-M)* Web enablement, *Navigation Sensor System Interface (NAVSSI) Lite*,



Web-enabled Scheduling System (WebSKED), Naval Integrated Tactical Environmental (Sub)System (NITES) 2000, Marine Logistics Data Network (MLDN), and Link Monitoring Capability (LMC) products in less than 1 year from initiation to deployment.

Achieved Acquisition Category (ACAT) milestones within acquisition program baselines for:

- *GCCS-M*, an ACAT IAC program, completed a major program review chaired by ASD C3I.



- *Mobile User Objective System (MUOS)*, a pre-Milestone Decision Authority (MDA) program, achieved Milestone C.

- *Automated Digital Network System Secret General Service (ADNS GENSER)*, an ACAT III program, achieved Milestone III.
- *Navigation Warfare Sea Echelon Area Phase 1A (NAVWAR SEA PH 1A)*, an ACAT III program, achieved Milestone C.
- *Sensitive Compartmented Information (SCI) Networks*, an ACAT III program, achieved Milestone III.

COST

Attained a commandwide cost savings of \$56.8M as a result of improved installation, contracting, and acquisition procedures. SPAWAR returned these savings to the Fleet or sponsors.

Achieved significant savings for the *Multi-functional Information Distribution System (MIDS) Low Volume Terminal (LVT)* using an innovative continuous competition acquisition strategy. Competition between the two U.S. *MIDS* contractors yielded an average unit price 3% lower than the Government's independent cost estimate.

Implemented *Financial Management Information System (FMIS 2000)*, improving ability to plan and execute funds and track costs by product and service.

Introduced *Common Work Breakdown Structure* tool to provide a more usable framework to manage project elements.



CAPABILITY

Added nine additional UHF SATCOM channels and achieved a 15% overall bandwidth increase by engineering a *UFO* frequency reuse solution. The *UFO* Program Office received a Secretary of the Navy Meritorious Unit Commendation.

Fielded eight *Submarine High Data Rate (Sub-HDR)* systems that dramatically increased submarine communication capabilities (from 2.4Kbps to 128Kbps or 1024Mbps, depending on frequency spectrum).



Provided communications engineering support to the *Global Hawk* Unmanned Aerial Vehicle (UAV) program to enable large-scale data flow to OEF tactical commanders and headquarters units.

Installed *Knowledge Web (K-Web)* display technology onboard *USS Carl Vinson* to allow dynamic control of Naval air forces from multiple carriers and provide continuous air presence to support ground forces deep into the interior of Afghanistan.

Accelerated the fielding of 93 satellite communications terminals, resulting in increases in two-way communications capability of 118 Mbps and receive-only capability of 630 Mbps.

Developed and deployed ground robots to support Special Forces in Afghanistan. The robots saved lives by searching caves, minimizing danger to ground troops.

Demonstrated *Navy Enterprise Portal*, a major component of *Task Force Web* on *USS George Washington*.

Led the Navy's efforts to develop, prototype, and assess transformational *Command, Control, Communication, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)* technologies that will operate in *FORCEnet* architecture, including the *Expeditionary Command, Control, Communications, Computers, and Combat Systems Grid (EC5G)*, which integrates specialty networks into a global, secure, robust Internet Protocol (IP) network architecture.



Transitioned intelligence surveillance and reconnaissance capability technology into *GCCS-M*, which allowed insertion of manned and unmanned aircraft video that significantly enhanced situational awareness.

As the principal U.S. Navy site for the *Joint Warrior Interoperability Demonstration*, doubled the number of command and control technologies assessed (compared to the previous year).

Rapidly executed emergency funding after 9/11 to procure and field more than 4,500 secure telephones. This provided seven times the normal secure-phone capacity and three times the normal technical support.

Deployed 38,000 *Navy/Marine Corps Intranet (NMCI)* seats and gained *NMCI Secure*

Internet Protocol Routing Network Interim Authority to Operate from the Defense Information System Network Designated Approval Authority.

Received the Navy's "Business Process Reengineering Team" award for becoming the first operational *Enterprise Resource Planning (ERP)* command, allowing the Navy to evaluate this new capability as part of the operational vision for *Sea Enterprise*.

Initiatives – Products

Providing accessible collaborative tools with advanced functionality—a crucial improvement to Fleet tactical and operational systems



Rapid Targeting. *Naval Fires Network (NFN)* integrates sensor data and other intelligence information, then converts it to precise targeting data. SPAWAR's *NFN* support focused on integrating disparate systems to provide access to multiple-source sensor data and to support intelligence, time-sensitive targeting, and strike operations.

"NFN allows us to strike faster and more accurately by streamlining information from every intelligence source straight to us, skipping the middle man...It's helping us put bombs where we want them – faster and more efficiently."

Senior Chief Intelligence Specialist
USS Abraham Lincoln

Speed-to-Capability. SPAWAR's ability to rapidly infuse new capabilities to the Fleet has saved costs and cycle time. The speed-to-capability concept involves rapid prototype development and fielding. For example, the *Link Monitoring Capability (LMC)* was deployed in less than 4 months and is monitoring the real-time health of tactical data links. To improve the Fleet's afloat meteorological capability, SPAWAR engineered, tested and deployed the *Naval Integrated Environmental System (NITES 2002)* upgrade in less than 30 days. Both systems were installed on *USS John C. Stennis* and successfully battle tested during Operation Enduring Freedom.

Web-enabled Fleet. Advancing its mission of Web-enablement, *Task Force Web (TFW)* merges IT systems into an accessible portal to make dozens of

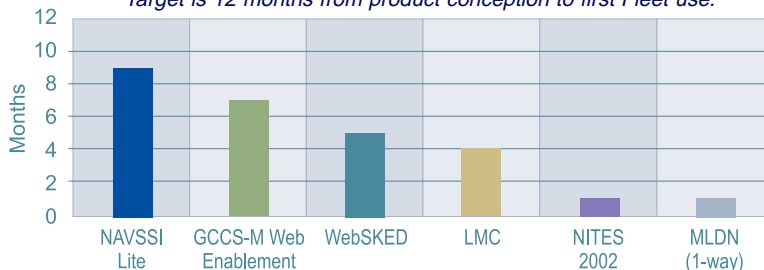
databases available through a single Web page. The anytime-anywhere accessibility of *TFW* to Fleet users is transforming the computing environment. The first *TFW* pilot installation delivered more than 50 applications to more than 3,000 users.

Web-enabled Coalition. Expanding the goal of a Web-enabled Navy to our partners, *Combined Enterprise Regional Information Exchange System (CENTRIXS)* enables communication system interoperability with NATO and Allied/Coalition forces. *CENTRIXS* provides ship-to-shore Web replication, secure e-mail, and Lotus Sametime™ chat communications over satellite communications (SATCOM) with Coalition partners. The *Coalition Wide Area Network (COWAN)*, one *CENTRIXS* component, was designed and fielded in less than 3 months.

SPAWAR addressed the interface between *Global Command and Control System-Maritime (GCCS-M)* and *Tactical Environmental Support-Navy*, dramatically reducing the time needed to place moving targets in the crosshairs. SPAWAR also led an *NFN* communications working group that analyzed and tested plans to provide upgraded satellite communications capabilities to *NFN*.

SPAWAR Speed-to-Capability Successes

Target is 12 months from product conception to first Fleet use.



Initiatives – Business Efficiency and Effectiveness

Business systems, processes, and tools create the business practices that enable SPAWAR to deliver value and capability to the Fleet

Business Efficiency. SPAWAR implemented an integrated *Enterprise Resource Planning (ERP)* system at System Center San Diego. *ERP* links asset management, controlling, finance, human resources, material management, project systems, and sales and distribution management data modules to provide enterprise-wide insights.

For the second year in a row, the ERP Project Cabrillo Team was recognized for their superior performance. This year they received the Navy's "Business Process Re-engineering Team" award. The Assistant Secretary of the Navy, Financial Management and Comptroller, presented the award in May 2002.

Acquisition Efficiency.

SPAWAR uses a *Balanced Scorecard (BSC)* approach to improve efficiency and effectiveness as an acquisition command. Starting with the Strategic Plan, managers identified objectives and established measures and targets. This comprehensive approach includes weekly reviews to track our progress on customer, financial, process, workforce and workplace goals.

Project Management

Automation. In 2002, SPAWAR completed the *Financial Management Information System (FMIS 2000)* implementation. *FMIS* provides the capability to plan and execute funds throughout the product life cycle and track all planned and actual costs by product and service. This year, SPAWAR also implemented the *Common Work Breakdown Structure (WBS)* tool, providing a financial framework for products by hardware, software, and service element in terms of hierarchically-related elements.

Networking Consolidation.

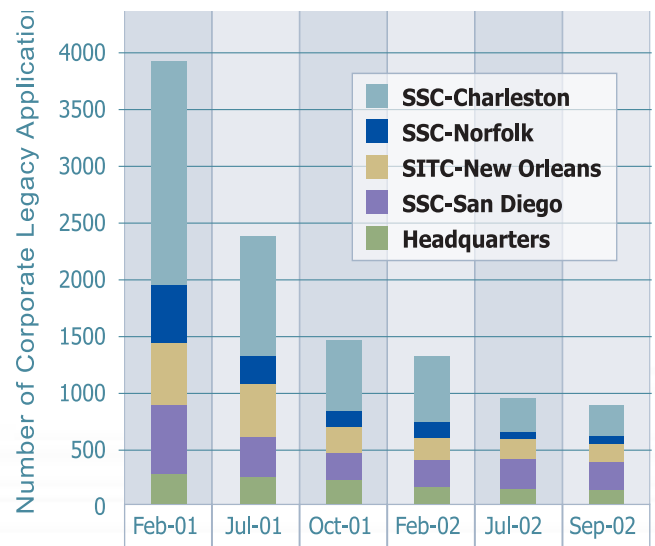
The Navy-Marine Corps Intranet (NMCI) provides integrated voice, video, and data communications and will consolidate 200 networks into one secure intranet. The *NMCI Web Portal* has already eliminated nearly two-thirds of the SPAWAR legacy applications to save money, free space, and take full advantage of the Navy's afloat and ashore infrastructure investments.

Database Consolidation.

SPAWAR's transition to the *Navy Data Environment (NDE)* will consolidate numerous C4I installation-related databases and integrate SPAWAR and NAVSEA Fleet modernization data. Already, 10% of the existing data elements have been mapped or eliminated. This integrated data environment significantly reduces data management costs, improves data integrity, streamlines the review and approval process, and serves as the authoritative data source.

SPAWAR Legacy Applications

Eliminating inefficient legacy applications saves money.



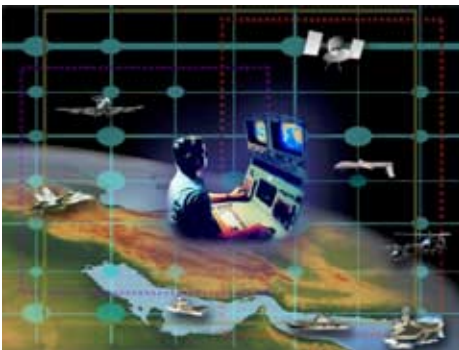
Partners in Transformation

Working to increase capabilities for the Navy, Joint Operations, and Coalition Partners



FORCEnet Engineering

Management. Concurrent to the establishment of Program Executive Office (PEO) C4I and Space and the emergence of *FORCEnet*, SPAWAR designed the Chief Engineer organization to provide technical services and leadership for Navy C4I programs. Working with NAVSEA, NAVAIR,



MARCORSYSCOM, and other key Navy and Joint organizations as well as industry, SPAWAR will focus on *C4I* architectures and standards, assessments, and systems engineering and integration.

Coordinated and Informed.

Every week SPAWAR, PACFLT, LANTFLT, NETWARCOM, and OPNAV participate in operations briefings. First established to address casualty reports and emergent Fleet issues after 9/11, these briefings grew to include discussions on predeployment battle group metrics, *NMCI*, information assurance, and force protection. This weekly forum has become a vital communication link that addresses topics that directly affect the Fleet.

Distributing Capabilities.

SPAWAR's active management of *Foreign Military Sales (FMS)* programs enhanced Fleet activities in Operation Enduring Freedom. Accelerated deliveries of current C4I capabilities to our coalition partners enabled the U.S. Navy to redirect assets in the war on terrorism. Using existing and new *FMS* programs, Coalition partners can maintain, and potentially increase, their interoperability with Fleet requirements. SPAWAR accomplished this in close coordination with NAVCENT and USCENTCOM to meet Coalition requirements in Operation Enduring Freedom. The *FMS* program serves approximately 37 customer countries with more than 400 programs valued over \$1.5B in business.



PEO C4I Leadership. Aligned with SECNAV requirements, other PEOs within the DoN, and counterpart organizations within the Army and Air Force, SPAWAR's PEO C4I and Space will serve as the Naval integration point into a DoD-wide C4I architecture. By partnering to develop DoD-wide C4I architecture and providing acquisition authority for Naval C4I systems, we will help ensure that the operational concepts of Network Centric Warfare and *FORCEnet* become a combat capability for battlefield decision superiority.

Joint Interoperability. SPAWAR works closely with testing organizations to ensure that software and hardware interfaces, waveforms, and protocols are interoperable in Joint, Allied, or Coalition environments. SPAWAR's geographically dispersed testing facilities and subject matter experts actively participate in Joint Fleet exercises and battle experiments. SPAWAR signed agreements with Joint

Interoperability Test Command (JITC) and Marine Corps Tactical Systems Support Activity (MCTSSA) and is working on another agreement with Operational Test & Evaluation Force (OPTEVFOR) for interagency testing.

Community Partnerships.

SPAWAR works extensively with industry partners to develop and field information technology to the Fleet. These valuable partnerships reduce Navy investments in expensive research, development, and testing, and allow SPAWAR to select proven technologies and provide speed-to-capability.

SPAWAR personnel stay informed of the newest technology developments due to SPAWAR's long-standing relationships

with the National Defense Industry Association; the Armed Forces Communications and Electronics Association; and commercial, industry organizations, such as the San Diego Telecommunications Council.

University Partnerships.

SPAWAR's close affiliation with academic institutions provides an ongoing dialog with faculty and student researchers.

SPAWAR actively identifies, evaluates, funds, and accelerates the development of technological concepts that can be applied to both the government and private sectors. University relationships also

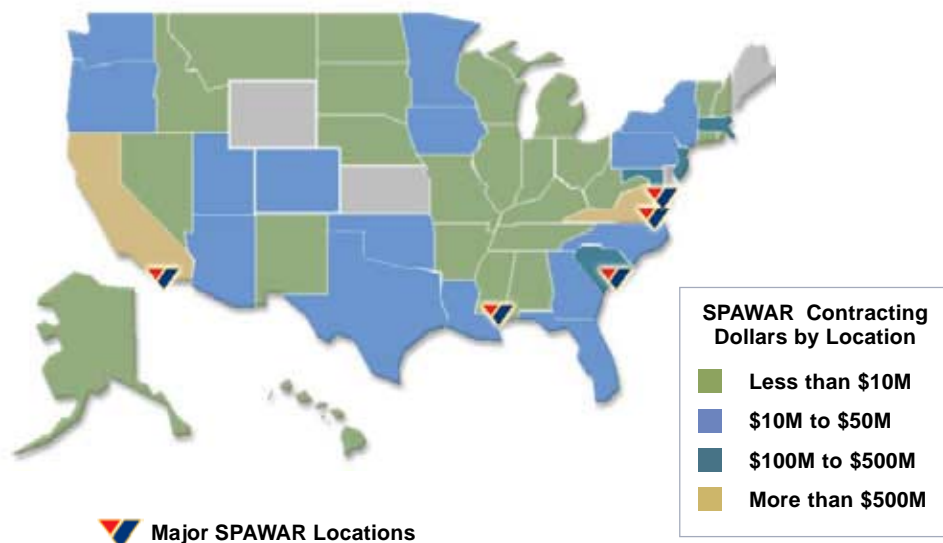
provide an excellent recruitment resource for high-caliber graduate and undergraduate students.





Prime Contracting

Nationwide Presence. SPAWAR currently conducts business in 47 states, contracting with private industry for nearly \$3 billion, with \$700 million going directly to small businesses.



Partnering with Industry. SPAWAR works extensively with, and relies heavily on, our industry contractor partners to develop and field the latest information technologies to the Fleet. These valuable partnerships help lower ultimate costs to the Navy by reducing the Navy's investment in expensive research, development and testing, while allowing SPAWAR to select and adapt proven technologies for Navy use. Industry's capability to develop and quickly market new technologies increases SPAWAR'S speed-to-capability success.

SPAWAR Profile

Across six major locations, SPAWAR's staff of engineering, field support, information technology, and program management professionals work together to design, procure, field, and support products for the warfighter.

SPAWAR Headquarters San Diego

<http://enterprise.spawar.navy.mil>

Public Affairs Office **619-524-3428**

SPAWAR Systems Center San Diego

www.spawar.navy.mil

Public Affairs Office **619-553-2724**

SPAWAR Systems Center Charleston

www-chas.spawar.navy.mil

Public Affairs Office **843-218-4020**

SPAWAR Systems Center Norfolk

www.scn.spawar.navy.mil

Public Affairs Office **757-443-0104**

SPAWAR Information Technology Center New Orleans

www.spawaritc.navy.mil

Public Affairs Office **504-697-2073**

SPAWAR Space Field Activity Chantilly

<http://enterprise.spawar.navy.mil/>

spawarpublicsite/pd14/ssfa/

Public Affairs Office **703-808-1013**



Our Workforce. SPAWAR employees comprise a dynamic workforce with a variety of backgrounds, education, and experience. From helping agencies defeat terrorist activities to delivering cost-cutting solutions to customers, the goal is the same—planning and designing for the future.

Occupational Category

Science, Engineering, and Technical Support	44%
Computer Science, Computer Engineering, and General IT Support	28%
Logistics, Program Management and Analysis, and Financial	12%
Contracting	5%
Clerical and Other	11%

Education/Degree Level

Ph.D.	3%
Master's Degree	15%
Bachelor's Degree	42%
Associate's Degree	5%
Post High School	17%
High School	18%

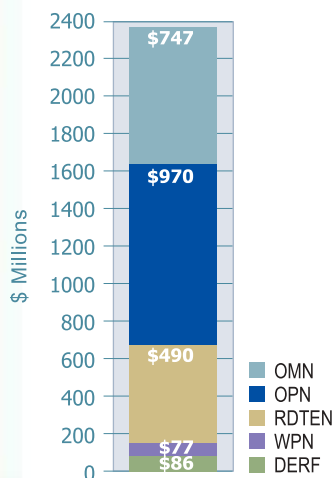
Years of Experience

30+ years	16%
20-30 years	29%
10-20 years	33%
5-10 years	8%
Less than 5 years	14%

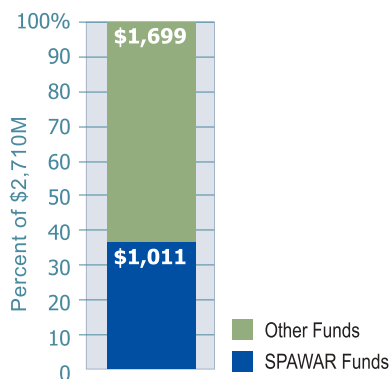
SPAWAR Funding Sources and Allocations

The SPAWAR Command is responsible for a total of \$5,206M of funding. \$2,370M was part of the FY02 appropriation, \$1,699M came from the Working Capital Fund (WCF), and \$991M was provided by Other Customer Funds (OCF). The composition of these three funding categories is presented below.

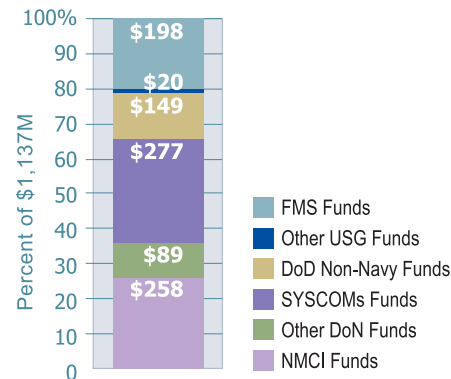
FY02 SPAWAR Appropriated Funding – **\$2,370M**



Total FY02 SPAWAR WCF Funding – **\$2,710M**

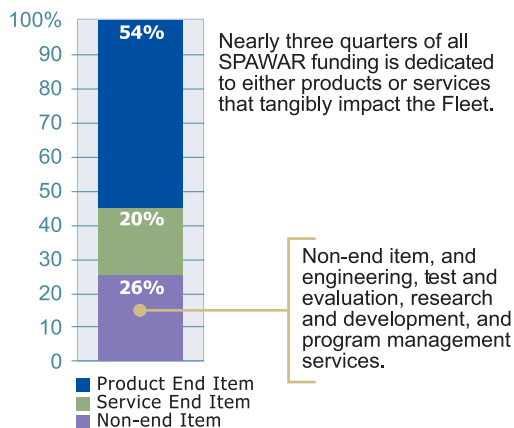


Total FY02 SPAWAR OCF Funding – **\$991M**



SPAWAR Delivery to the Fleet

All SPAWAR Dollars

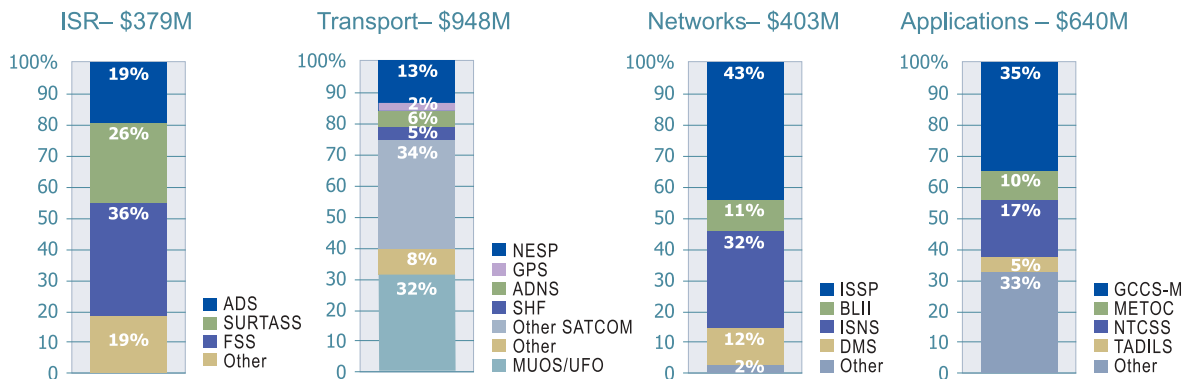




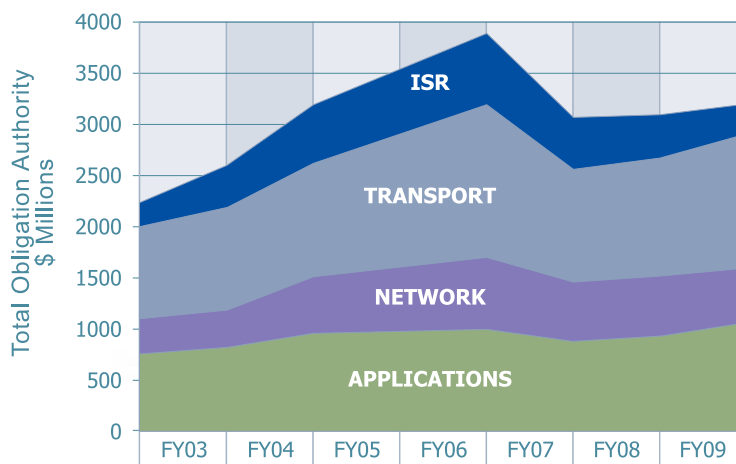
SPAWAR's appropriated funding went to four main business lines: Intelligence, Surveillance, and Reconnaissance (ISR), Transport, Networks, and Applications. Combined, these business lines are the primary component of the Navy *FORCEnet* initiative.

The percentage breakdown of SPAWAR business lines is: ISR 16%, Transport 40%, Network 17%, and Applications 27%. The funding profile peaks in FY06 as we deliver *C4ISR* and IT capability to the Navy both afloat and ashore.

FY02 Business Lines Total Portfolio – \$2.370B



Future Business Line Funding





The Course Ahead

This annual report demonstrates our progress in delivering integrated *C4ISR* capabilities to the Fleet, and that positive trend will continue to grow in the coming year. But an annual report would not be complete without addressing SPAWAR's role in the Navy's future. The Navy is facing one of its greatest challenges: transforming itself for the 21st century. How will SPAWAR contribute to that Navy transformation?

The evolution of *FORCEnet*, the foundation on which *SeaPower 21* will be built, will remain one of the SPAWAR team's highest priorities—second only to

our support of current Fleet readiness. We now have additional reporting responsibilities to Commander, Navy Network Warfare Command, which ties us even more closely to the Fleet and emphasizes our ability to respond quickly and effectively to Fleet needs. SPAWAR has been designated the Navy's C4I Chief Engineer, to provide consistency and stability in C4I design and interoperability. In addition, our new relationships with NAVAIR and NAVSEA, to serve as Chief C4I Architect

and Engineer, will increase coordination and establish consistent standards throughout Navy acquisition. All of these changes will impact the warfighter directly by improving and enhancing the tools used to defend and protect our nation.

Lastly, the creation of the Program Executive Office (PEO) for C4I and Space aligns SPAWAR with our sister acquisition organizations, NAVAIR and NAVSEA.

This PEO will provide direct oversight of major C4I programs by the Navy's Senior Acquisition Official (ASN (RDA)). This will free SPAWAR to do what we do best—research,



develop, engineer, acquire, and maintain the finest integrated information technology systems available today and in the future.

We live in exciting times. With the dedication, innovation, experience, and knowledge of the men and women of the Space and Naval Warfare Systems Command, our nation's Fleet could not have a better advantage to ensure its successful transformation.

knowledge superiority

command, control,
communications, computer,
intelligence and surveillance systems.

information technology
space systems

planning and
designing
for the future.





SPAWAR



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Space and Naval Warfare
Systems Command
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San Diego, CA 92110-3127

<http://enterprise.spawar.navy.mil>